

AMENDMENTS TO THE CLAIMS

1. (Previously Presented) A method for producing an acrylamide polymer comprising:
enzymatically hydrating acrylonitrile containing oxazole at a concentration of 5
mg/kg or less and hydrogen cyanide at a concentration of 1 mg/kg or less to yield acrylamide;
and
polymerizing monomers containing the acrylamide.

2. (Previously Presented) The method for producing an acrylamide polymer according
to claim 1, wherein, during said hydrating, the reaction is carried out until the concentration
of acrylamide generated in a reaction solution becomes 30% by mass or more.

3. (Previously Presented) The method for producing an acrylamide polymer according
to claim 1, wherein the enzymatic method is carried out using microbial cells as catalysts.

4. (Previously Presented) An acrylamide polymer obtained by a method comprising:
hydrating acrylonitrile containing oxazole at a concentration of 5 mg/kg or less and
hydrogen cyanide at a concentration of 1 mg/kg or less by an enzymatic method to yield
acrylamide, and
polymerizing monomers containing acrylamide.

5. (Previously Presented) The method for producing an acrylamide polymer according
to claim 2, wherein the enzymatic method is carried out using microbial cells as catalysts.

6. (Previously Presented) A method for producing an acrylamide polymer comprising:

measuring the content of oxazole and hydrogen cyanide in an acrylonitrile sample;
enzymatically hydrating acrylonitrile containing oxazole at a concentration of 5 mg/kg or less and hydrogen cyanide at a concentration of 1 mg/kg or less identified by said measuring to yield acrylamide; and
polymerizing monomers containing the acrylamide.

7. (Previously Presented) The method for producing an acrylamide polymer according to claim 6, wherein, during said hydrating, the reaction is carried out until the concentration of acrylamide generated in a reaction solution becomes 30% by mass or more.

8. (Previously Presented) The method for producing an acrylamide polymer according to claim 7, wherein the enzymatic method is carried out using microbial cells as catalysts.

9. (Previously Presented) The method for producing an acrylamide polymer according to claim 6, wherein the enzymatic method is carried out using microbial cells as catalysts.

10. (Previously Presented) An acrylamide polymer obtained by the method according to claim 6 ~~a method comprising:~~

~~hydrating acrylonitrile containing oxazole at a concentration of 5 mg/kg or less and hydrogen cyanide at a concentration of 1 mg/kg or less by an enzymatic method to yield acrylamide, and~~
~~polymerizing monomers containing acrylamide.~~

11. (Previously Presented) A method for producing an acrylamide polymer comprising:

- measuring the content of oxazole and hydrogen cyanide in an acrylonitrile sample;
- reducing the concentration of oxazole in the acrylonitrile to 5 mg/kg or less of and
- reducing the concentration of hydrogen cyanide to 1 mg/kg or less;
- enzymatically hydrating acrylonitrile containing oxazole at a concentration of 5 mg/kg or less and hydrogen cyanide at a concentration of 1 mg/kg or less produced by said reducing to yield acrylamide; and
- polymerizing monomers containing the acrylamide.

12. (Previously Presented) The method for producing an acrylamide polymer according to claim 11, wherein, during said hydrating, the reaction is carried out until the concentration of acrylamide generated in a reaction solution becomes 30% by mass or more.

13. (Previously Presented) The method for producing an acrylamide polymer according to claim 12, wherein the enzymatic method is carried out using microbial cells as catalysts.

14. (Previously Presented) The method for producing an acrylamide polymer according to claim 11, wherein the enzymatic method is carried out using microbial cells as catalysts.

15. (Currently Amended) An acrylamide polymer obtained by the method according to claim 11 ~~a method comprising:~~

~~hydrating acrylonitrile containing oxazole at a concentration of 5 mg/kg or less and
hydrogen cyanide at a concentration of 1 mg/kg or less by an enzymatic method to yield
acrylamide, and
polymerizing monomers containing acrylamide.~~